

UNDESCRIBED SPECIES OF CRANE-FLIES FROM  
THE HIMALAYA MOUNTAINS (TIPULIDAE,  
DIPTERA), I\*

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During recent years great accessions of Tipulidae from various parts of the Himalaya Mountains have become available that have added vastly to our knowledge of this hitherto poorly known region. The late Enrico Brunetti described some 240 species of these flies, a considerable proportion from Darjeeling (Darjiling), in extreme northern Bengal, India, providing us with our first knowledge of the rich fauna of the eastern Himalayas. Very important collections have been made by Dr. Fernand Schmid in Pakistan, Kashmir and Jammu, pertaining to the western Himalayas. At this time I am describing species that were taken in Nepal by my friend and former student, Dr. Edward I. Coher, assisted by other members of the World Health Organization staff, particularly Mr. Gobinda Prasad Joshi. I am very greatly indebted to Messrs. Coher and Joshi for this important collection that has given us our first real knowledge of the Tipulidae of Nepal.

It is of unusual interest to note the great differences in species composition between this material from Nepal and the large series described from Darjeeling by Brunetti, as noted above. A great proportion of the Nepal species are distinct from those recorded from Darjeeling and this may perhaps be accounted for in part by the fact that much of the Nepal materials were taken in October, representing the autumnal fauna, whereas Brunetti's species pertained more often to the vernal and summer forms. It appears certain, however, that there is an actual marked difference in the crane-fly fauna of the two regions, despite the fact that they are separated by so relatively short a distance.

The largest and most important series in the present material comes from Simbhanjang Pass, in the Mahabharat Range, on the Bhainse-Katmandu road, at altitudes between 7900 and 8190 feet.

\* Contribution No. 1256 from the Department of Entomology, University of Massachusetts.

Most of the other specimens are from Amlekhgang, south of Katmandu, altitude about 1690 feet, site of much active field work of the World Health Organization in the control of malaria and other insect-borne diseases.

*Cylindrotoma nigratarsis* new species

General coloration yellow, patterned with blackish gray, including a solid shield on the praescutum; antennae black, scape and pedicel yellow; tibiae and tarsi black; wings with a brownish tinge, restrictedly patterned with darker brown at origin of *Rs* and along the cord.

SEX? Length about 7.5 mm.; wing 8 mm.

Rostrum brown; palpi brown, terminal segment pale outwardly, subequal to or a little longer than the preceding two segments combined. Antennae with scape and pedicel yellow, flagellum black; flagellar segments oval, a trifle longer than the verticils. Head dark brown.

Pronotum yellow. Mesonotal praescutum with the disk virtually covered by confluent grayish black stripes, forming a discal shield, restricting the ground to the lateral borders; scutellum light brown; mediotergite blackish gray. Pleura yellow, conspicuously patterned with blackish gray on the ventral anepisternum and more extensively on the sternopleurite. Halteres with stem light brown, yellow at base, knob darker brown. Legs with the coxae and trochanters yellow; femora obscure yellow basally, passing into brown, the tips gradually blackened; tibiae and tarsi black. Wings with a brownish tinge, the prearcular and costal fields more yellowed; stigma long-oval, pale brown; distinct brown clouds at origin of *Rs*, along cord and over outer end of cell 1st *M*<sub>2</sub>; veins brown, more fulvous brown in the brightened parts. Venation: *Rs* slightly longer than *R*<sub>3</sub>; petiole of cell *M*<sub>1</sub> a trifle longer than *m*; *m-cu* about one-third its length beyond the fork of *M*.

Abdomen light brown, the outer segments more yellowed; subterminal segments black, forming a ring; terminal segments broken so sex cannot be affirmed but from the structure of the antennae it is probably a female.

Holotype, Sex?, Simbhanjang Pass, Nepal, 8190 feet, October 27, 1956 (Coher).

The only approximately similar described regional species is *Cylindrotoma pallidipes* Alexander, of northeastern Burma, most readily told by the yellowish white tarsi and the less heavily patterned wings. It should be noted that the species described by Brunetti (1911) as *Cylindrotoma quadricellula* from the Darjeeling District belongs to the genus *Stibadocera* Enderlein, an entirely different fly.

*Pedicia (Tricyphona) perpallens* new species

Thorax light brown to buffy gray, praescutum with a central darker stripe; antennae brown throughout; legs dirty white to pale brown, the outer

tarsal segments darker; wings subhyaline, very pale, the veins pale and indistinct against the ground; outer medial field pectinate by the atrophy of basal section of vein  $M_3$ .

MALE. Length about 5.5 mm.; wing 6 mm.; antenna about 0.8 mm.

FEMALE. Length about 5-6.5 mm.; wing 5.5-7 mm.

Rostrum and palpi brown. Antennae short, brown throughout; flagellar segments oval, with short verticils. Head dark brown.

Pronotum darkened medially above, paler on sides. Mesonotum light brown to buffy gray, praescutum with a central darker stripe; posterior sclerites of notum more yellowed. Pleura buffy to light gray, unpatterned. Halteres light yellow. Legs with the coxae and trochanters pale yellow; remainder of legs dirty white to pale brown, outer tarsal segments darker. Wings very pale, subhyaline, unpatterned; veins pale brownish yellow, poorly visible against the ground. Venation: Vein  $R_5$  diverging strongly from  $R_{1+2}$ , cell  $R_2$  at margin about three times cell  $R_3$ ;  $r-m$  shortly beyond fork of  $R_5$ ; petiole of cell  $R_4$  subequal to  $r-m$ ; outer medial field pectinate, cell  $M_2$  being open by atrophy of basal section of  $M_3$  and cell  $M_1$  present;  $m-cu$  at fork of  $M$ .

Abdominal tergites brown, sternites brown, the posterior borders of the segments vaguely paler, in cases the basal segments pale brown, the outer ones, with the hypopygium, darker brown. Ovipositor with both the cerci and hypovalvae very long and slender, nearly straight, tips acute.

Holotype, ♀, Sleepy Hollow, Nepal, 7900 feet, December 1956 (G. P. Joshi). Allotype, ♂, Simbhanjang Pass, Nepal, 8190 feet, October 27, 1956 (Coher). Paratype, a broken ♀, with the allotype, October 1, 1956 (Coher).

The pectinate type of venation is likewise found in *Pedicia* (*Tricyphona*) *pectinata* (Alexander), of Japan, and in some Nearctic forms. It is quite distinct from all other Himalayan members of the subgenus in the pale coloration of the body and wings and in the venation.

#### *Nipponomyia joshii* new species

Size relatively large (wing of female 13 mm.); mesonotal praescutum with dark pattern reduced to four very small spots; legs yellow, the outer tarsal segments darkened; wings tinged with yellow, with the characteristic *Nipponomyia* pattern; cell  $C$  with subtransverse darkened lines; crossvein  $m$  oblique in position.

FEMALE. Length about 15 mm.; wing 13 mm.

Rostrum and palpi brown. Antennae with the scape light brown, pedicel yellow; flagellum broken. Head with anterior vertex light gray; posterior vertex and occiput paling to light brown.

Pronotum yellow, weakly darkened on anterior face. Mesonotal praescutum with the disk brownish yellow, the lateral parts more whitened; setum brownish yellow; the usual dark pattern of the notum consists of

two pairs of very small spots on the praescutum, the anterior pair more reduced; scutal lobes each with two larger black areas on lateral part; scutellum and postnotum testaceous, parascutella with a blackened spot; extreme cephalic-lateral angle of mediotergite with a comparable small black spot; the entire mesonotum thus with a total of twelve dark spots, none large or striking. Pleura and pleurotergite yellowed. Halteres pale yellow. Legs yellow, the outer two tarsal segments brownish black; tips of tibiae and remaining tarsal segments more vaguely darkened. Wings tinged with yellow, patterned with darker yellow in the characteristic pattern of the genus, including a submarginal stripe from the wing base to the tip, more or less bordered by darker; further buffy yellow areas along cord and obliquely across the outer forks and crossvein *m*, these narrowly margined with slightly darker brown; cell *C* with subtransverse brown lines; veins yellow, including those in the darkened areas. Venation: *m* oblique in position.

Abdomen yellow, both tergites and sternites with linear brownish black linear streaks, those of the tergites smaller, submarginal, occurring on segments two to five; markings of sternites more elongate and more nearly marginal in position.

Holotype, ♀, Simbhanjang Pass, Nepal, 8190 feet, October 1, 1956 (Coher & Joshi).

This fly is named for the collector, Mr. Gobinda Prasad Joshi, of the World Health Organization in Nepal. By my key to the known species of *Nipponomyia* (Philippine Jour. Sci., 56: 551-552; 1935), the fly runs to *Nipponomyia novem-punctata* (Senior-White), common in the Khasi Hills, Assam, differing in the virtually uniform yellow legs and the reduced dark pattern of the mesonotum, including twelve small areas instead of nine chiefly larger ones.

***Dicranota (Eudicranota) dione* new species**

General coloration of thoracic notum brownish gray, praescutum with three pale brown stripes; postnotal mediotergite darkened, pleurotergite and pleura abruptly white; halteres and legs white; wings whitish subhyaline, with a conspicuous dark brown chiefly costal pattern; a supernumerary crossvein in cell *R*<sub>1</sub> but none in any other cells.

FEMALE. Length about 9 mm.; wing 9 mm.

Rostrum and palpi brown. Antennae with scape dark brown, pedicel obscure yellow, flagellum pale brown; flagellar segments oval, shorter than the longest verticils. Head light brown; anterior vertex broad.

Pronotum brown medially, the sides broadly white. Mesonotal praescutum whitish gray, with three broad pale brown stripes that are inconspicuous against the ground; scutum uniformly grayish brown; scutellum very pale gray; mediotergite brownish gray; pleurotergite and pleura abruptly and entirely white. Halteres white. Legs white, only the outer three tarsal segments brown. Wings whitish subhyaline, conspicuously patterned with

dark brown, including the base and cells *C* and *Sc*, the latter sending posterior extensions over the origin of *Rs* and more narrowly along cord and vein *R*<sub>2</sub>; outer end of cell 1st *M*<sub>2</sub> less evidently darkened; veins pale yellow, darker in the patterned fields. Venation: *Rs* angulated at origin; vein *R*<sub>3</sub> upcurved at outer end; basal section of *R*<sub>3</sub> short; cell *M*<sub>1</sub> subequal to its petiole; *m* transverse, shorter than basal section of *M*<sub>3</sub>; *m-cu* more than one-half its length beyond the fork of *M*.

Abdomen elongate; tergites yellowish brown basally, darker outwardly, with darker brown setigerous punctures; sternites pale brown; outer segments and the powerful cerci dark brown to brownish black.

Holotype, ♀, Simbhanjang Pass, Nepal, 8190 feet, October 1, 1956 (Coher).

The most recent key to the subgenera of *Dicranota* Zetterstedt is one by the writer (Arkiv för Zoologi, 42 A, no. 2: 17-18; 1949). The present fly is quite distinct from *Dicranota* (*Eudicranota*) *dicranotoides* Alexander, of eastern Asia, more resembling species in the subgenera *Dicranotella* Alexander or *Rhaphidotabina* Alexander but being readily told by the subgeneric characters.

#### *Hexatoma* (*Eriocera*) *coheri* new species

Belongs to the *lunata* group; general coloration dark; antennae of male greatly elongated, basal segments yellow, outer flagellar segments darkened; fore and middle legs chiefly yellow, posterior tibiae conspicuously modified, lengthened and enlarged, provided with abundant dark setae; wings whitish hyaline, strikingly patterned with brown, including a series of transverse brown lines in cell *C*; only two branches of *M* reach the wing margin.

MALE. Length about 8 mm.; wing 10 mm.; antenna about 27 mm.

Type specimen badly broken. Mouthparts greatly reduced. Antennae of male very long, as shown by the measurements; scape and pedicel obscure yellow, proximal two flagellar segments clearer yellow, the incisures narrowly darkened, outer flagellar segments passing into brownish black; individual flagellar segments very long, the first about two-thirds as long as the second; segments with scattered erect black setae. Front and anterior vertex light brown; vertical tubercle of moderate size.

Thorax chiefly dark brown, conspicuously hairy. Halteres brownish yellow, knob a little darker. Legs with the femora yellow, the posterior pair with a vague darker subterminal ring; fore and middle tibiae yellow; proximal two tarsal segments yellow, tips very narrowly darkened, outer segments passing into dark brown; posterior legs modified, tibiae very long, enlarged, covered with abundant erect black setae, slightly infuscated but appearing darker because of the vestiture; tarsi yellow, the outer three segments darker. Wings whitish hyaline, strongly patterned with brown, the arrangement somewhat as in the normal *Pedicia* wing, including major darkenings at base and in cells *R* and *M*, all of *R*<sub>1</sub>, and in the outer radial field,

the marking continued backward along the cord to the margin; less evident darkening in basal three-fourths of cell *Cu* and along vein *2nd A*; the ground color occurs near outer end of cells *R* and *M* and in distal ends of outer radial cells, largest in cell *R*<sub>4</sub>; outer medial field and more than one-half of cell *2nd A* of the ground color; cell *C* with transverse paler brown lines, variable in number and distinctness; veins fulvous brown, more yellowed in the clear areas. Venation: *Rs* moderately long, nearly twice *R*; *R*<sub>2</sub> oblique, directed basad, about one-half *R*<sub>1+2</sub>; veins *R*<sub>3</sub> and *R*<sub>4</sub> upcurved at tips, *R*<sub>5</sub> strongly decurved, cell *R*<sub>4</sub> widened at margin; cell *1st M*<sub>2</sub> present; only two branches of *M* reach the margin, interpreted as being *M*<sub>1+2</sub> and *M*<sub>3+4</sub>; *m-cu* at or just beyond fork of *M*.

Abdomen dark colored.

Holotype, ♂, Nagagavu, Nepal, 1690 feet, September 8, 1956 (Coher).

I am very pleased to dedicate this striking fly to Dr. Edward I. Coher, to whom I am indebted for this interesting series of Tipulidae. The known described relatives are from Indonesia, Sumatra and Borneo, all differing conspicuously from the present fly in the venation, *Hexatoma* (*Eriocera*) *perlunata* Alexander and *H. (E.) perornata* Alexander, of Borneo, having four branches of *Media*, while *H. (E.) lunata* (Westwood) of Borneo, and *H. (E.) ornata* (Enderlein), of Sumatra, have three such branches. The presence of only two such branches in the present insect marks the greatest reduction so far found in the subgenus *Eriocera* Macquart, although known in other groups, as *Hexatoma* s.s., *Cladolipes* Loew and *Para-hexatoma* Alexander.

#### ***Cheilotrichia* (*Empeda*) *paratythos* new species**

Size very small (wing of male about 2.2 mm.); general coloration dark brownish gray or plumbeous; halteres with knobs obscure yellow; legs brown; wings tinged with gray, without pattern; wing veins unusually glabrous; vein *R*<sub>2</sub> almost erect, cell *M*<sub>2</sub> open by atrophy of *m*, *m-cu* at or close to fork of *M*; male hypopygium with the dististyles long and slender.

MALE. Length about 1.6-1.8 mm.; wing 2.1-2.2 mm.

FEMALE. Length about 2.5 mm.; wing 2.5-2.6 mm.

Rostrum and palpi black. Antennae dark brown; flagellar segments oval. Head dark gray.

Pronotum and mesonotum dark brownish gray or plumbeous, without distinct pattern; pseudosutural foveae brownish black. Pleura dark brown. Halteres with stem dusky, narrowly yellowed at base, knob more obscure yellow. Legs with coxae brown; trochanters yellow; remainder of legs brown. Wings tinged with gray, without pattern; veins pale brown. Veins virtually glabrous, involving all veins beyond cord except for a sparse series of trichia on *R*<sub>1</sub> and one or few on distal section of *R*<sub>5</sub>. Venation: *Sc* short,

$Sc_1$  ending just beyond origin of  $R_s$ ,  $Sc_2$  immediately before this origin,  $Sc_1$  short; vein  $R_s$  almost erect, separated on costa from  $R_{1+2}$  by a distance greater than its own length;  $R_2$  faint, longer than  $R_{2+3+4}$ ;  $R_{3+4}$  nearly four times  $R_3$  and longer than  $R_4$ ; cell  $M_2$  open by atrophy of  $m$ ; cell  $M_3$  about twice its petiole;  $m-cu$  at or close to fork of  $M$ ; vein  $2nd A$  straight.

Abdomen, including the male hypopygium, dark brown. Ovipositor with the cerci very long and straight, more than one-third the remainder of abdomen. Male hypopygium with the apical lobe of basistyle slender, pale yellow, with abundant setae. Both dististyles long and slender, the longer outer one dark-colored, forking at near midlength into two unequal arms, the outer longer and more obtuse at tip; inner style a long very slender paler blade that expands very gradually outwardly, the tip obtuse. Gonapophyses appearing as large flattened plates. Apex of phallosome apparently not narrowly produced and blackened, as in *tytthos*, but this may be due to injury of the unique specimen on slide.

Holotype, ♂, Amlekhgang, Nepal, 1690 feet, July 30, 1956 (Coher). Allotopotype, ♀, August 26, 1956. Paratopotypes, 4 ♂♀, July 30, 1956 (Coher).

*Cheilotrichia (Empeda) paratyttos* is quite distinct from all other regional members of the subgenus, the closest ally being *C. (E.) tytthos* Alexander, of Kashmir. The two flies are evidently allied despite important differences in the venation, including the radial and medial fields, and in the structure of the male hypopygium. These two species are among the smallest crane-flies known from the Oriental region.

#### **Erioptera (Tasiocerodes) nepalensis** new species

General coloration yellowish brown, pleura pale yellow; setae of head unusually strong, black, erect to subproclinate; legs yellow, scales tristriate; wings brownish yellow, cord seamed with darker; male hypopygium with the outer dististyle darkened, split into two blades; inner style subterminal, very pale; gonapophyses appearing as powerful divergent curved horns.

MALE. Length about 3 mm.; wing 3.5 mm.

Rostrum and palpi brown. Antennae with scape and pedicel light brown; flagellum broken. Head light brown, with unusually strong black bristles, those of the anterior vertex erect to subproclinate.

Pronotum brownish yellow in front, whitened behind, with a transverse row of about four powerful erect setae; pretergites white. Mesonotum yellowish brown, the praescutum with a slightly darker brown central stripe, widest in front, becoming obsolete far before the suture; pseudosutural fovae very narrow, transverse, black; posterior sclerites of notum more testaceous yellow. Pleura and pleurotergite chiefly very pale yellow, the mesepisternum weakly darkened. Halteres with stem pale, knob weakly darkened. Legs with coxae and trochanters pale yellow; remainder of legs yellow but appearing darker by the abundant vestiture of setae and scales;

scales long and narrow, each with three parallel central striae. Wings brownish yellow, the prearcular and costal fields clearer yellow; a narrow pale brown seam over the cord; cubital and anal cells weakly darkened; veins yellow, slightly darker in the infuscated areas. Venation: As in the subgenus,  $R_s$  being in direct longitudinal alignment with  $R_4$ ;  $R_{2+3}$  perpendicular at end of  $R_s$  and in transverse alignment with basal section of  $R_5$ ;  $R_2$  virtually in transverse alignment with the above or lying slightly more basad, slightly angulated and here with a short spur jutting into cell  $R_1$ ; cell  $M_3$  longer than its petiole;  $m-cu$  approximately its own length beyond the fork of  $M$ ; vein  $2nd\ A$  only slightly sinuous.

Abdomen light brown, hypopygium a trifle more yellowed. Male hypopygium very different from that of the other known species. Two dististyles, the outer terminal, darkened, deeply split into two blades, the shorter inner one more obtuse at tip; inner style a pale blade, subterminal in position, enlarged and twisted on outer half. Gonapophyses appearing as two powerful divergent curved horns that narrow very gradually into acute points.

Holotype, ♂, Baridamas, Nepal, 1690 feet, September 3, 1956 (Coher).

This unusually interesting fly is the first representative of the subgenus *Tasiocerodes* Alexander to be discovered in Continental Asia. The two described species, *Erioptera (Tasiocerodes) persessilis* Alexander, of Honshu, and *E. (T.) subsessilis* Alexander, of Formosa, differ conspicuously in the structure of the male hypopygia.

#### ***Erioptera (Erioptera) pompalis* new species**

Size large (wing of female 8 mm.); general coloration of head and thorax dark gray, praescutum with a narrow brownish black central vitta; halteres light yellow; antennae and legs black; wings brownish yellow, conspicuously patterned with dark brown, including especially a seam over the cord; vein  $M_{3+4}$  very short.

FEMALE. Length about 7.5 mm.; wing 8 mm.

Rostrum and palpi black. Antennae black throughout; basal flagellar segments short-suboval, passing into subcylindrical, about equal to the verticils. Head gray.

Pronotum dark gray, scutellum brownish black medially, paling to brown on sides. Mesonotum dark gray, praescutum with a narrow brownish black central vitta, the posterior third suffused with brown; pseudosutural foveae conspicuous; posterior sclerites of notum blackened, pruinose; centers of scutal lobes infuscated, posterior sclerites more evidently black. Pleura and pleurotergite, with the dorsopleural membrane, dark gray. Halteres clear golden yellow throughout. Legs with the coxae dark gray; remainder of legs black. Wings tinged with brownish yellow, prearcular field clearer yellow; a conspicuous darker pattern, including a darker brown seam from stigma across the cord, and over  $Sc_2$  and fork of  $M_{3+4}$ ; less intense brown



washes in basal half of cells *C* and *Sc* and as seams along veins  $M_3$  and  $Cu_1$ ; Anal cells extensively washed with pale brown; veins dark brown, yellowed at wing base. Venation:  $M_{3+4}$  very short, only a little longer than basal section of  $M_{1+2}$ ; *m-cu* immediately before fork of *M*; vein *2nd A* strongly sinuous.

Abdomen brownish black, the subterminal segments more intensely blackened. Ovipositor with the valves elongate, horn-colored.

Holotype, ♀, Simbhanjang Pass, Nepal, 8190 feet, October 1, 1956 (Coher).

*Erioptera (Erioptera) pompalis* is quite distinct from other regional species of the subgenus, differing especially in the coloration of the body, wings and appendages. The most similar such species is the smaller *E. (E.) orientalis* Brunetti, which differs in all details of coloration and in the venation, especially veins  $M_{3+4}$  and *2nd A*. The species next described as *E. (E.) impensa* new species is fully as large but quite distinct in the coloration of the body and appendages, as the blackened knobs of the halteres.

***Erioptera (Erioptera) impensa* new species**

Size very large (wing of male 7 mm., of female 8 mm. or more); general coloration of thorax light gray and brown; basal segments of antennae reddish yellow, remainder of flagellum black; knobs of halteres brownish black; femora yellow, passing into brown; wings strongly yellowed, with a conspicuous brown seam over the cord; male hypopygium with the posterior border of the tergite unequally trilobed, the margins scabrous; outer dististyle a narrow glabrous blade; inner style narrowed and recurved at tip.

MALE. Length about 6.5 mm.; wing 7 mm.

FEMALE. Length about 7-7.5 mm.; wing 8-9 mm.

Rostrum dark brown; palpi black. Antennae with basal segments reddish yellow, remainder of flagellum black. Head buffy in front, darker behind.

Pronotal scutum narrowly dark brown medially, paling to obscure yellow on sides, scutellum and pretergites yellow. Mesonotal praescutum with the center of the disk light gray, the cephalic end paler but with a capillary darkened central line; humeral region brownish yellow, sides concolorous to light gray; scutal lobes light brown, scutellum darker brown, more or less pruinose; postnotum testaceous. Pleura darkened dorsally, the ventral sclerites, including sternopleurite, meron and metapleura more fulvous; dorsopleural membrane pale. Halteres with stem pale, knob brownish black. Legs with fore coxae darkened, remaining coxae and all trochanters yellow; femora yellow basally, the tips broadly brown to dark brown; tibiae brown to dark brown; tarsi outwardly still darker. Wings strongly yellowed, with a narrow but conspicuous brown seam over the cord, paler on *Cu* to the posterior margin; paler brown to scarcely perceptible clouds over veins  $M_3$  and  $M_4$ ; veins bright yellow, dark in the band at cord. Venation: Vein *2nd A* very long and sinuous, as in the subgenus, ending opposite or beyond *m-cu*.

Abdomen brownish yellow, the outer segments, including the genitalia, dark brown to brownish black. Male hypopygium with the posterior border of tergite unequally trilobed, the obtuse lateral lobes with abundant coarse setigerous tubercles and projections, the smaller central lobe with somewhat similar but smaller points. Basistyle near apex produced into a conical lobe. Both dististyles terminal; outer style a simple slender glabrous blade, gradually narrowed to the acute tip; inner style shorter and stouter, terminating in a strongly recurved spine. Phallosome including the lyriform aedeagus, with very long recurved arms, and the shorter horn-colored apophyses.

Holotype, ♂, Sleepy Hollow, Nepal, 7900 feet, October 1, 1956 (Coher). Allotype, ♀, Simbhanjang Pass, Nepal, 8190 feet, October 1, 1956 (Coher & Joshi). Paratypes, 5 ♀♀, with the allotype.

*Erioptera (Erioptera) impensa* is readily told from other described regional members of the subgenus by the large size and pattern of the wings. In these respects it somewhat approaches the otherwise very distinct *E. (E.) pompalis* new species.

#### ***Erioptera (Ilisia) grumula* new species**

Allied to *areolata*; general coloration buffy brown to gray, mesonotal praescutum with three darker brownish gray stripes; antennae black, first flagellar segment yellowed; halteres pale yellow; legs brownish yellow, tarsi darker; wings almost uniformly light yellow, stigma slightly darker; cell 1st  $M_2$  small; male hypopygium with the outer dististyle compact, with a spiculose outer arm and an inner acute projection; inner style pale, bent strongly at near midlength; phallosome with two pairs of slender simple rods, one conspicuously hairy, the other glabrous.

MALE. Length about 4.8–5 mm.; wing 5.5–5.8 mm.

FEMALE. Length about 5.5 mm.; wing 5.3–6.2 mm.

Rostrum and palpi dark brown. Antennae black, first flagellar segment more yellowed. Head brownish gray to gray.

Pronotum brown medially; scutellum and pretergites light yellow. Mesonotal praescutum of holotype light gray, with three dark brownish gray stripes, the humeri buffy; pseudosutural foveae chestnut; posterior sclerites of notum dark brown, more or less patterned with dusky; mediotergite slightly darker on posterior two-thirds. In specimens other than the holotype the thorax is more buffy than gray, the praescutal stripes paler. Pleura chiefly light gray. Halteres pale yellow. Legs with coxae and trochanters yellow; femora and tibiae brownish yellow, tarsi darker. Wings almost uniformly light yellow, stigma slightly darker, ill-delimited; veins and trichia yellow. Venation: Cell 1st  $M_2$  small, narrowed at base,  $m$  longer than basal section of  $M_3$ ; veins  $M_3$  and  $M_4$  turned strongly upward at outer ends; vein 2nd  $A$  straight.

Abdomen brownish black, including the hypopygium; in the paratype male hypopygium somewhat brighter but damaged. Male hypopygium with

the basistyle produced beyond the insertion of the dististyles into a stout lobe. Two dististyles, the outer compact, black, including a stout slightly curved outer arm provided with abundant spinous points and appressed spines, and an inner shorter projection that terminates in a strong black spine; inner style pale, bent strongly at midlength, the outer half tapering to the narrow obtuse tip. Phallosome including two pairs of slender simple rods, one conspicuously hairy, the other glabrous, broader on more than the basal half, thence narrowed to the subobtusate tip.

Holotype, ♂, Simbhanjang Pass, Nepal, 8190 feet, October 1, 1956 (Coher). Allotype, ♀, Sleepy Hollow, Nepal, 7900 feet, October 1, 1956 (Coher). Paratopotype, 1 broken ♂; paratype, 1, with the allotype.

The most similar regional species is *Erioptera (Ilisia) dichroa* Alexander, of western China, which differs in the slightly patterned wings and in all details of structure of the male hypopygium.

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(Continued from page 136)

Dr. Johansson noted that the insect fauna of Norway is largely unexplored, and mere description of it could keep many generations of entomologists busy.

A lively discussion followed, and persisted well after President Vishniac closed the official part of the meeting at 9:15 P.M.

EDWARD S. HODGSON, *Secretary*, pro tempore

MEETING OF DECEMBER 6, 1955

A regular meeting of the Society was held in Room 129, American Museum of Natural History. President Vishniac presided. The minutes of the previous meeting were accepted as amended. Dr. Edward S. Hodgson, 570 West 183rd Street, New York, New York was elected to membership. A nominating committee was appointed to consist of Mr. Teale, Mr. Soraci, and Dr. Clausen, chairman. Also appointed was an auditing committee composed of Dr. Treat and Dr. Forbes, chairman. Dr. Hodgson reported on the Cincinnati meeting of the Entomological Society of America. Two hundred papers were read in the four days. Dr. Hodgson analyzed the number of papers in the various disciplines. One hundred were in the field of applied entomology. Fifty were pure physiology. Fifty were in ecology. Two were in morphology and three were in taxonomy. Of the three taxonomic papers, only one could be classified as pure taxonomy.

The scientific paper of the evening was given by Dr. Alexander B. Klots of the College of the City of New York, on arctic entomology.

The study of arctic entomology prior to 1945 was very spotty. It had, according to Dr. Klots, a romantic, explorer quality about it. With the exception of the Greenland material in the Danish Museums, only a few thousand Lepidoptera were known.

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